

In the Claims:

Please cancel claims 1-92 without prejudice. Applicants reserve the right to pursue the subject matter of these claims in a related application to be filed at Applicants' discretion.

Please add the following claims:

93. (New) A method of treating a patient, comprising:

- (a) providing a tissue removal system;
- (b) removing adipose tissue from a patient using the tissue removal system, the adipose tissue having a concentration of stem cells;
- (c) processing at least a part of the adipose tissue to obtain a concentration of stem cells other than the concentration of stem cells of the adipose tissue before processing, wherein the adipose tissue is degraded without substantially damaging cells contained within the tissue by mixing the adipose tissue with at least one enzyme that disrupts intercellular contact for a short amount of time relative to an amount of time that the enzyme would otherwise be left on the adipose tissue to fully disaggregate the tissue; and
- (d) administering the stem cells to a patient without removing the stem cells from the tissue removal system before being administered to the patient.

94. (New) The method as set forth in claim 93, wherein (d) includes combining the concentration of stem cells with another part of the adipose tissue and administering the combination to the patient.

95. (New) The method as set forth in claim 94, wherein a volume of the at least a part of the adipose tissue differs by more than 25% from a volume of the other part of the adipose tissue.

96. (New) The method as set forth in claim 94, wherein a volume of the at least a part of the adipose tissue differs by more than 100% from a volume of the other part of the adipose tissue.

97. (New) The method as set forth in claim 93, wherein (c) is followed by mixing the concentration of stem cells from the at least a part of adipose tissue with another part of the adipose tissue, and wherein (d) comprises administering the mixture to a patient.
98. (New) The method as set forth in claim 97, wherein a volume of the at least a part of the adipose tissue differs by more than 50% from a volume of the other part of the adipose tissue.
99. (New) The method as set forth in claim 97, wherein a volume of the at least a part of the adipose tissue differs by more than 150% from a volume of the other part of the adipose tissue.
100. (New) The method as set forth in claim 93, wherein (c) comprises only partially disaggregating the at least a portion of the adipose tissue.
101. (New) The method as set forth in claim 93, wherein (c) comprises processing the adipose tissue into multiple portions of adipose tissue,.
102. (New) The method as set forth in claim 101, wherein (c) comprises only partially disaggregating at least one of the multiple portions of adipose tissue.
103. (New) The method as set forth in claim 101, further comprising mixing at least two of the portions of adipose tissue together.
104. (New) The method as set forth in claim 102, wherein at least one of the portions of adipose tissue has been processed to form a pellet containing stem cells.
105. (New) A method of treating a patient, comprising:
- (a) providing an adipose tissue removal system;
 - (b) removing adipose tissue from a patient using the adipose tissue removal system, the adipose tissue having a concentration of stem cells; and

- (c) processing the adipose tissue to increase the concentration of stem cells in the adipose tissue;
- (d) mixing the adipose tissue having the concentrated stem cells with another portion of adipose tissue; and
- (e) administering the mixed adipose tissue to a patient.

106. (New) The method as set forth in claim 105, wherein (b) comprises at least one of aspirating adipose tissue from the patient and excising adipose tissue from the patient.

107. (New) The method as set forth in claim 106, wherein (c) further comprises disaggregating the filtered adipose tissue, followed by using a spinning membrane filter.

108. (New) The method as set forth in claim 105, wherein:

- (c) comprises separating the adipose tissue into portions, and increasing the concentration of stem cells in at least one portion of adipose tissue; and

- (d) comprises mixing the at least one portion of adipose tissue with the other portion of adipose tissue.

109. (New) The method as set forth in claim 108, further comprising only partially disaggregating the at least one portion of adipose tissue.

110. (New) The method as set forth in claim 108, wherein (c) further comprises mixing the at least one portion of adipose tissue with a portion of adipose tissue that does not have an increased concentration of stem cells.

111. (New) The method as set forth in claim 105, wherein the tissue removal system is a closed system, and (c) is performed entirely in the closed system.

112. (New) The method as set forth in claim 105, wherein (b) and (c) are automated.

113. (New) The method as set forth in claim 112, wherein (b), (c), and (d) are automated.

114. (New) The method as set forth in claim 108, wherein a volume of the at least one portion of the adipose tissue differs by more than 25% from a volume of the other portion of the adipose tissue.

115. (New) The method as set forth in claim 108, wherein a volume of the at least one portion of the adipose tissue differs by more than 100% from a volume of the other portion of the adipose tissue.

116. (New) The method as set forth in claim 105, further comprising (f) disposing of parts of the tissue removal system that have contacted body fluids after the mixed adipose has been administered to the patient.